

Professional and Managerial Branch
Engineering Group
Registered Engineer Series

ELECTRICAL ENGINEER IV

09/89

CHARACTERISTICS OF THE CLASS:

Under general direction, supervises engineering, technical and clerical personnel engaged in engineering projects, performs responsible and difficult engineering tasks; performs related duties as required.

EXAMPLES OF DUTIES:

Establishes design criteria and parameters for electrical equipment; reviews the designs and specifications of electrical components and equipment to assure the most efficient utilization of energy; assures designs are functional, practical and economical; reviews the design and development of solid state control and monitoring equipment; prepares electronic design, schematics, assembly diagrams, specifications, wire lists and wiring diagrams; verifies cost estimates of projects; plans and supervises the building, testing and de-bugging of prototype units; supervises the selection and procurement of equipment; trains personnel and prepares operator manuals for the proper operation and maintains of electrical equipment; recommends and implements procedures for efficient operation of equipment.

Supervises the inspection of contract projects; oversees the inspection and testing of materials; reviews and interprets plans, specifications and other documents pertaining to contracted work.

Review plans and specifications prepared by City employees and private consultants; assigns inspection projects; supervises the preparation of technical records and reports; performs special studies; appraises shortages, excesses, quality and cost of existing facilities; may develop operating budget for assigned section; assures work being performed by section meets established deadlines; represents the City at public hearings and meetings; acts as liaison with local utilities.

Supervises trains and evaluates assigned personnel; enforces established rules and regulations, standards of conduct and work attendance; complies with and enforces safe working practices and procedures; maintains records and prepares reports.

MINIMUM QUALIFICATIONS:

Training and Experience: Graduation from an accredited college or university with a Bachelor's Degree in Electrical Engineering and six years of professional electrical engineering experience, including two years experience as a registered professional engineer; or an equivalent combination of training and experience.

Knowledge, Abilities and Skills: Comprehensive knowledge of the principles and practices of electrical engineering; comprehensive knowledge of the methods, materials, tools and equipment used in electrical construction; considerable knowledge of cost determination techniques as they pertain to electrical assemblies; considerable knowledge of federal, state and local laws, codes and ordinances as they pertain to electrical engineering; considerable knowledge of supervisory methods, standards of conduct and work attendance; considerable knowledge of safe working practices and procedures; considerable knowledge of the use of computer-aided drafting and design (CADD) system.

Ability to supervise, train and evaluate assigned personnel; ability to prepare and review designs, plans and specification; ability to determine project costs; ability to detect, analyze and find solutions for defects in equipment, components and assemblies; ability to prepare and implement procedural improvements; ability to establish and maintain effective working relationships with fellow employees, officials and the general public; ability to express oneself clearly and concisely, both orally and in writing; ability to maintain records and prepare reports.

Physical Requirements: Mobility within an office, field and construction site environment; operate a motor vehicle through City traffic.

Special Requirements: Subject to on-call during non-working hours and mandatory overtime during periods of Public Works Emergency Operations.

Licenses and Certificates: Texas Class "C" Drivers License or equivalent license issued by another state. Registration as a Professional Engineer in the State of Texas.

Director of Personnel

Department Head

OFFICIAL